

# NOTEWORTHY PLANTS FROM NORTH FLORIDA. VI

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## ABSTRACT

The following appear to be first reports for the state of Florida: *Anredera baselloides*, *Chimaphila maculata*, *Scirpus subterminalis*, *Silene caroliniana*, and *Zigadenus leimanthoides*. Some additions to the Florida panhandle are documented also, and several significant range extensions, particularly for rare or endangered taxa within our area, are given.

## RESUMEN

Las plantas siguientes parecen ser primeras citas para el estado de Florida: *Anredera baselloides*, *Chimaphila maculata*, *Scirpus subterminalis*, *Silene caroliniana* y *Zigadenus leimanthoides*. Se documentan también algunas adiciones para el extremo de Florida y se dan varias extensiones de área significativas, particularmente para plantas raras o en peligro dentro de este área.

Recent botanical discoveries in the western part of the state prompted this sixth installment of a series (Anderson 1984, 1986, 1988a, 1989, 1991) to update our knowledge of the flora of the Florida panhandle and Clewell's (1985) guide to the flora. The area of coverage is from the Suwannee River west to the Alabama state line.

New discoveries—i.e., taxa not listed by Clewell—and range extensions of selected rare or otherwise noteworthy taxa are given here. Only general locations are given for some of the rarer taxa; most Eglin Air Force Base localities are closed to the public, and the area is patrolled and protected by military and civilian personnel. Exotics that appear to be adventive or naturalized are also listed. Herbarium specimens are at FSU unless noted otherwise.

## TAXA NEW TO THE AREA

***Amaranthus palmeri* Watson.** Gadsden Co.: fallow field, Quincy, 3 Nov 1965, R. K. Godfrey 67534 (FLAS, FSU), originally identified as *A. hybridus*; Jefferson Co.: frequent bordering pastures along Hwy 221 just N of Ashville, 19 Sep 1988, L.C. Anderson 11833; Leon Co.: roadside weed in Tallahassee, 12 Jul 1991, L.C. Anderson 13469 (staminate plant), 13470 (pistillate plant); naturalized, new to Florida panhandle.

***Anredera baselloides* (H.B.K.) Baill.** Leon Co.: locally common along

railroad embankment, W of Cadiz Street in Tallahassee, 4 Aug 1993, *L.C. Anderson 14506*, 27 Oct 1993, *L.C. Anderson 14614*; naturalized, new to Florida. A tendency toward imperfect or functionally imperfect flowers exists in the genus (Bogle 1969). Our plants have bisexual flowers; the pollen appears fertile (as determined by microscopic examination of stained grains), but no fruits have been found. Another species, *A. leptostachya* (Moq.) Steenis occurs sporadically in peninsular Florida. Its flowers have three bifid styles and are subtended by separate, caducous bracteoles, whereas flowers of *A. baselloides* have single styles with three capitate stigmas and are subtended by connate, persistent bracteoles.

***Belamcanda chinensis*** (L.) DC. Leon Co.: along fence at San Luis Ridge park, 1 Aug 1994, *L.C. Anderson 15168*; naturalized, new to Florida panhandle.

***Blechnum serrulatum*** L.C. Richard. Bay Co.: large, local population in wet pine flatwoods in St. Andrews State Recreation Area near Grand Lagoon, 22 Jan 1995, *L. O'Kane s.n.*; naturalized (or native?), new to Florida panhandle.

***Chimaphila maculata*** (L.) Pursh. Leon Co.: 15–20 stems seen in shade of magnolia-beech-oak woodland near Chaires, 27 Apr 1993, *L.C. Anderson 14185*; native, new to Florida.

***Ficus pumila*** L. Leon Co.: Tallahassee, *R.K. Godfrey*; Florida State University campus, Tallahassee, 12 Oct 1994, *L.C. Anderson 15306*; naturalized in Tallahassee for many years (apparently overlooked by Clewell).

***Galactia elliotii*** Nutt. Taylor Co.: locally common in coarse sandy soil along Rte 361, ca. 10 air mi NW of Steinhatchee, 13 Jul 1992, *L.C. Anderson 13649*, native, new to Florida panhandle.

***Lindera subcoriacea*** Wofford. Okaloosa Co.: shaded floodplain of Metts Creek, Eglin Air Force Base, 31 Jul 1992, *L.C. Anderson 13851*, 15 Jul 1993, *L.C. Anderson 14451*; native, new to Florida panhandle (possibly new to the state). Some collections from peninsular Florida have been tentatively identified as this species (McCartney et al. 1989), but B. Sorrie (pers. comm.) claims those plants represent *L. benzoin* (L.) Blume var. *pubescens* Palmer & Steyermark.

***Melampodium divaricatum*** (Rich. in Pers.) DC. Leon Co.: Leon Sinks Geological Area in Apalachicola National Forest, 25 Oct 1993, *L.C. Anderson 15283*. A single plant of this Central American species was found (it is available through local nurseries for horticultural use and may become naturalized).

***Monotropa hypopithys*** L. Okaloosa Co.: slopes of Silver Creek, E of Rte 85 on Eglin Air Force Base, 27 Jun 1994, *A. Schotz 1100*; Walton Co.: dried flowering stems infrequent along crest of steep head, Eglin Air Force Base, generally N of Choctaw Beach, 30 May 1994, *A. Schotz 1157*; new to

Florida panhandle. This endangered species (Coile 1993b) is known to occur in central peninsular Florida (Ward 1966).

**Scirpus subterminalis** Torr. Santa Rosa Co.: collected via canoe along edge of Big Coldwater Creek, T3N, R28W, Sec 13, 30 May 1994, *L. Chafin 2051*; frequent in coarse sand of shallow, shaded shoal, submersed in 10–15 cm water with *S. etuberculatus* (Steud.) Kuntze along bank of Big Coldwater Creek between Bass Brinks Creek and Wolfe Creek, ca. 7.5 air mi NNE of Milton, 1 Jul 1994, *L.C. Anderson 15053*; native, new to Florida.

Koyama (1962) concluded that *S. subterminalis* and *S. etuberculatus* were conspecific and made the combination *S. subterminalis* var. *cylindricus* (Torr.) Koyama for the latter. He reasoned that *S. torreyi* Olney should be merged with *S. subterminalis* and that *S. etuberculatus* was just a southern form of *S. torreyi* (hence all three belonged to one species), but Gleason and Cronquist (1991) treat all three as distinct species.

Apparently, *S. subterminalis* and *S. etuberculatus* do hybridize in South Carolina (A. Pittman, pers. comm.). He suggests the two morphologies (i.e., *S. subterminalis* with flaccid, terete submerged stems with inflorescences as single spikes and *S. etuberculatus* with rigid, triangular emergent stems with umbellate inflorescences) may be due to the respective plants growing at different levels in the water column. I found the two growing side by side on the same shallowly submerged shoal with no sign of intergradation; further, populations of typical *S. etuberculatus* are scattered across much of Florida, yet *S. subterminalis* has just now been found in the state—it should be more wide spread if it is indeed just an ecotypic variant. I consider the two as distinct species that may exhibit some hybridization in limited portions of their ranges.

**Silene caroliniana** Walt. Okaloosa Co.: infrequent at base of shaded N-facing bluff bordering Rocky Bayou, E of Niceville, 21 Jun 1994, *L.C. Anderson 15021*; native, new to Florida. This may be a relictual population persisting in a suitable niche in an otherwise inhospitable environment; a similar circumstance has been suggested for *S. virginica* L. (Anderson 1991; Kral 1966).

**Solanum viarum** Dunal. Leon Co.: wooded slope above Dog Lake, Apalachicola National Forest, 20 Oct 1994, *R.K. Godfrey 84074*; single plant seen and destroyed (naturalized?), first report for Florida panhandle. This noxious weed was recently found in southern Florida (Coile 1993a) and now infests considerable acreage there.

**Sphagneticola trilobata** (L.) Pruski. Leon Co.: roadside ditch, Tallahassee, 20 Jul 1994, *L.C. Anderson 15107*; naturalized, new to Florida panhandle. The species is widely cultivated and naturalized in peninsular Florida and around New Orleans; this new report represents the northern-most population known for the species.

This species was placed in *Wedelia* for many years. Strother (1991) said it should be in a separate genus, which he named *Complaya*, but Pruski (1995) noted the earliest available generic name is *Sphagneticola*.

***Zigadenus leimanthoides*** A. Gray. Escambia Co.: along creek S of Nine Mile Rd, W of Pensacola, 27 May 1984, *J.R. Burkhalter* 9390 (FLAS, FSU); Okaloosa Co.: shaded floodplain along Metts Creek, Eglin Air Force Base, 31 Jul 1992, *L.C. Anderson* 13847; shaded floodplain along Middle Creek, Eglin Air Force Base, 2 Jun 1994, *L.C. Anderson* 14913; sunny seepage slope under power line along Turkey Creek, Eglin Air Force Base, 9 Jun 1994, *L.C. Anderson* 14944; Walton Co.: northwest [part of county], 17 May 1938, *E.G. Hume s.n.* (FLAS); shaded bay-gall bordering seepage slope, Blount Mill Creek drainage, 29 Jul 1994, *L.C. Anderson* 15140; native, new to Florida.

The Burkhalter specimens are labeled *Z. densus* (Desr.) Fern., but that species is characterized as having racemose inflorescences as opposed to paniculate ones in *Z. leimanthoides*. Preece (1956) states the two species are closely related but distinct (he did not see the Hume specimen), whereas W. McDearman (pers. comm.) considers the two conspecific. The two species appear ecologically and morphologically distinct in the Florida panhandle. The taxonomic relationships are complicated further because the type specimens of *Z. leimanthoides* are relatively small plants from the mountains of North Carolina, whereas plants from the Florida coastal plain are very robust (they may represent a separate taxon).

#### ADDITIONAL RANGE EXTENSIONS

***Asclepias viridula*** Chapm. Walton Co.: scattered in wet flatwoods at Alaqua Point, S of Rte 20, 1 Jul 1994, *A. Schotz* 1104; new to western panhandle (Wilhelm 1984, pers. comm.). This taxon is considered threatened in Florida (Coile 1993b).

***Calycanthus floridus*** L. Walton Co.: in semi-shade of oak-sourwood-pine woodland along Rocky Creek, 6 mi NE of Niceville, 26 Apr 1994, *A. Schotz* 1019; new to western panhandle (Wilhelm 1984, pers. comm.). This species is considered endangered in Florida (Coile 1993b).

***Coelorachis tuberculosa*** (Nash) Nash. Santa Rosa Co.: infrequent in depression marsh at Goose Ponds, Blackwater River State Forest, 11 Sep 1994, *J. Jensen s.n.*; new to western panhandle (Wilhelm 1984, pers. comm.).

***Crataegus phaenopyrum*** (L. f.) Medic. Liberty Co.: swamp, Ochlockonee River, 4 May 1987, *H.G. Grant s.n.* (FLAS); Wakulla Co.: frequent on Ochlockonee River floodplain with *Nyssa ogechee*, *N. biflora*, *Liquidambar styraciflua*, and *Taxodium ascendens*, Apalachicola National Forest, T3S, R4W, Sec 18, 1 Jul 1993, *G. Anglin s.n.*, 12 Jul 1994, *L.C. Anderson* 15067; Walton Co.: *Nyssa ogechee* swamp, N side Sister River in

Choctawhatchee River delta, 17 Oct 1988, *A.F. Clewell s.n.* (FLAS). The Wakulla County trees are 7–12 m tall, and the erect, leafless trunks (8–10 cm DBH) are armed with patches of thorns. This species is rare in Florida (Anderson 1986) and is listed as endangered (Coile 1993b). Coker and Totten (1934) reported this species (as *C. youngii* Sarg.) from Wakulla County; it has now been rediscovered for the county.

**Cyperus hystricinus** Fern. Okaloosa Co.: infrequent in dry sand of open hickory-pine woods at Rocky Bayou State Recreation Area, Niceville, 21 Jul 1994, *L.C. Anderson 15014*; this constitutes the second record for this species in the state. Carter (1988) reported the species from Walton County.

**Eleocharis confervoides** (Poir.) Tucker. Okaloosa Co.: common (vegetative) in Blue Spring, Eglin Air Force Base, 12 Mar 1994, *L.C. Anderson 14670*; Santa Rosa Co.: abundant (fruiting) in shallow waters of Atwell Pond on Eglin Air Force Base, 31 Jul 1992, *L.C. Anderson 13833*. This infrequently collected species was long assigned to the genus *Websteria*.

**Liatris earlei** (Greene) K. Schumann. Okaloosa Co.: open pine-oak woodland, Rocky Bayou State Recreation Area, 28 Jul 1994, *L.C. Anderson 15127*; infrequent in northern Florida, new to western panhandle (Wilhelm 1984, pers. comm.).

**Linum westii** Rogers. Okaloosa Co.: frequent in peaty sand along margin of small *Taxodium ascendens*-*Ilex myrtifolia* swamp on Eglin Air Force Base, N of Wynnehaven Beach, 14 Aug 1992, *L.C. Anderson 13911*. This is a significant extension westward for this endangered species (Coile 1993b).

**Matelea alabamensis** (Vail) Woodson. Walton Co.: locally common on wooded slopes above Piney Creek, N of Choctaw Beach, 17 Jul 1994, *A. Schotz 1125*. This species is endangered in Florida (Coile 1993b) and new to the western panhandle (Drapalik 1970; Wilhelm 1984, pers. comm).

**Panicum nudicaule** Vasey. Walton Co.: locally common on seepage slopes, Blount Mill Creek drainage, 28 Jul 1994, *L.C. Anderson 15120*, 29 Jul 1994, *L.C. Anderson 15142*. Clewell (1985) included this species in *Dichanthelium dichotomum* (L.) Gould [i.e., *P. dichotomum*], but the two are very distinct in morphology and habitat preference. This rare species (Hitchcock 1950, Lelong 1988) is considered a species of special concern by the Florida Natural Areas Inventory.

**Pinguicula ionantha** Godfrey. Wakulla Co.: frequent with *P. pumila* along upper edge of wet, roadside depression, N edge of St. Marks, 11 Mar 1986, *L.C. Anderson 9117*. This is a new county of record for this endangered species (Coile 1993b).

**Rhexia parviflora** Chapm. Santa Rosa Co.: outer edge of small gum pond in Blackwater River State Forest, ca. 7 air mi E of Munson, 21 Sep 1989, *S.L. Orzell & E.L. Bridges 12482*; locally abundant along edge of *Ilex myrtifolia* marsh at Goose Ponds, Blackwater River State Forest, 9 Jul 1994,

*J. Jensen s.n.*; Walton Co.: edge of titi-gallberry depression at Alaqua Point, 1 Jul 1994, *A. Schotz 1103*; drainage ditch in pine flatwoods at Alaqua Point, 16 Jul 1994, *L.C. Anderson 15095*. These represent two new counties of record for this "rarest of the *Rhexia* species" (Bounds 1987) that is considered endangered in Florida (Coile 1993b).

***Rhynchospora crinipes*** Gale. Okaloosa Co.: forming mats with *Sphagnum* along Malone Creek, 30 Jul 1992, *L.C. Anderson 13807*; infrequent (semi-floating) on shaded, wet bank of Metts Creek, Eglin Air Force Base, ca. 10 air mi W of Rte 85, 15 Jul 1993, *L.C. Anderson 14450*. These constitute an additional county of record in the Florida panhandle for this rare species (Anderson 1988b).

***Rhynchospora leptocarpa*** (Chapm.) Small. Okaloosa Co.: frequent in wet peat near headwaters of Point Lookout Creek, Eglin Air Force Base, 23 Jul 1992, *L.C. Anderson 13746*; upper edge of tidal marsh on Rocky Bayou, 0.5 mi E of Niceville, 21 Jun 1994, *L.C. Anderson 14980*. This species is rarely collected in Florida.

Kral (pers. comm.) considers this species conspecific with the widespread *R. capitellata* (Michx.) Vahl. The latter is a more delicate plant with darker brown floral scales from higher elevations (piedmont and mountains), whereas the coastal plants of *R. leptocarpa* are more robust and frequently form tussocks with 30–40 culms which are gracefully arching to 12 dm long. The two geographical populations appear to be distinct in achene morphology (Blake 1918); this complex needs further study.

***Ruellia pedunculata*** Torr. ex Gray ssp. ***pinetorum*** (Fern.) R.W. Long. Liberty Co.: frequent in seasonally wet depressions in pine woods, Apalachicola National Forest, 11 air mi SSW of Bristol, 26 Jun 1992, *L.C. Anderson 13660, 13675*. These represent the second county of record in the Florida panhandle for this infrequently encountered species.

***Sideroxylon lycioides*** L. Santa Rosa Co.: floodplain swamp near E end of Grimes Lake, S of Yellow River, Eglin Air Force Base (ca. 1.95 mi E of Parkerville), 1 Aug 1994, *A. Schotz 1142*. This species, formerly known as *Bumelia* (see Pennington 1991 for evidence supporting transfer to *Sideroxylon*), is endangered in Florida (Coile 1993b); it is new to the western panhandle (Wilhelm 1984, pers. comm.).

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